

CDC in Botswana



The Centers for Disease Control and Prevention (CDC) has collaborated with the government of Botswana since 1995 to strengthen tuberculosis (TB) control through public health research. In 2001 the partnership expanded to include HIV/AIDS programs. As an implementing agency of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), CDC Botswana provides technical assistance and is currently conducting medical research that includes a pre-exposure HIV prophylaxis adherence study, Gene Xpert evaluation, and the PEPFAR-funded Combination Prevention trial.

HIV/AIDS

Through PEPFAR, CDC Botswana provides technical assistance to help the ministry of health (MOH) implement an effective, efficient national HIV program. This support has contributed to saving the lives of men, women and children through high quality HIV treatment services and a comprehensive combination prevention strategy. Using a data-driven approach, this strategy is tailored to the unique characteristics of the local epidemic for maximum health impact.

Key areas of focus include high quality prevention, care and treatment services; HIV/counseling and testing scale-up; TB/HIV integrated service delivery; blood safety; early infant diagnosis (EID); and strengthening health systems. Health system strengthening is needed for long term program sustainability and includes building country capacity in the areas of workforce development, epidemiology, surveillance, health information systems, and program monitoring and evaluation to assess impact and make rapid course corrections to keep pace with changes in the local epidemic. CDC also builds in-country capacity for skilled laboratory workers, and national laboratory services which are vital to the expansion of HIV treatment, diagnosis, and care.

CDC support has played a key role in a number of Botswana success stories including its care and treatment program, the prevention of mother-to-child transmission (PMTCT), and voluntary medical male circumcision (VMMC). As of September 2012, 96% of men, women and children in need of HIV treatment received it. PMTCT has achieved a country-wide reduced transmission rate of less than 4%. The scale-up of VMMC has mounted to nearly 63,000 circumcisions conducted nationally over three years, with 65% of them achieved in 2012 alone.

With CDC support, huge strides have also been made in building high quality laboratory systems and capacity. Recent accomplishments include the establishment of a national TB reference laboratory, the implementation of enhanced diagnostics, the deployment of a laboratory information system to support and improve lab management and quality assurance, and the achievement of ISO 15189 accreditation.

Staff

CDC office (physical presence)
13 U.S. Assignees
84 Locally Employed

At a Glance

Population: 2,139,900
Per capita income: \$17,460
Life expectancy at birth
women/men: 67/62 yrs
Infant mortality rate:
31/1000 live births

Source: Population Reference Bureau Fact Sheet, 2014

Top 10 Causes of Death

1. HIV/AIDS 32%
2. Malaria 7%
3. TB 6%
4. Diarrheal Diseases 4%
5. Cancer 4%
6. Pre-Term Birth Complications 2%
7. Ischemic Heart Disease 2%
8. Stroke 2%
9. STDs 2%
10. Road Injuries 2%

Source: GBD Compare (<http://viz.healthmetricsandevaluation.org/gbd-compare/>), 2013





HIV Prevention Research

In addition to PEPFAR funded programs, CDC collaborated on a study of the safety and efficacy of taking antiretroviral medication to prevent HIV infection. This clinical trial showed that a combination of antiretroviral medications reduced HIV spread among heterosexual adults in Botswana by nearly 70%.

Health Systems Strengthening

The Botswana MOH has expressed interest in building epidemiology capacity using the Field Epidemiology and Laboratory Training Program (FELTP). As strategizing and planning continue toward the development of a two-year FELTP, the MOH expressed an urgent need for FELTP-related short courses to address immediate needs within the health system. CDC has worked with the MOH and the University of Botswana to implement FELTP-related short courses for ten of their 24 district health management teams. The FELTP-related short course trainings are competency-based and focused on the participant's current job duties and functions. The course is tailored to Botswana's needs and promotes the country's decentralized approach and builds capabilities at the district-level. These FELTP-related short courses encourage districts to review and analyze their own surveillance data at the local level to improve their response to outbreaks.

Injury Prevention

CDC's Division of Unintentional Injury Prevention (DUIP) is currently working with the University of Botswana (UB) to build in-country capacity for injury prevention research by training and mentoring researchers. DUIP and UB are working on several projects together, including an economic analysis examining the costs of road traffic crash-related injuries and deaths in Botswana; the design of a road user knowledge, attitudes, and behaviors survey; and an evaluation of the effect of a 2008 national alcohol tax on alcohol-related road traffic crashes.

Tuberculosis

Botswana's TB research program includes clinical trials, epidemiology and surveillance. Integration of the HIV and TB programs improved the quality, coverage, and impact of Botswana's TB and HIV national response. The program recently expanded to include treatment improvement, TB diagnosis and management, and TB transmission characteristics.

Impact in Botswana

- Groundbreaking CDC clinical trial of isoniazid prevention therapy (IPT) to prevent TB found:
 - Risk of TB disease in persons with positive TB skin test decreased 30-60% with six months treatment
 - 36 months was more effective than six to prevent TB disease
 - Botswana used results to design new IPT program and to form WHO guidelines for using TB skin tests and IPT in high HIV areas
- More than 90% of HIV-infected pregnant Botswana women received antiretroviral prophylaxis
- Mother-to-child HIV transmission was reduced to less than 4%
- Botswana achieved over 95% coverage for antiretroviral therapy in eligible HIV-infected persons

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For more country information: <http://www.cdc.gov/globalhealth/countries/botswana>

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